



EXIT GLACIER

VISITOR EXPERIENCE AND RESOURCE PROTECTION PLAN



Volume 2, Issue 2

May 2002

Message from the Superintendent

This newsletter reports on our continuing work with the Exit Glacier Visitor Experience and Resource Protection Plan. The August 2001 and the February 2002 editions provided background information on Exit Glacier and the project framework, updates on analyses of existing natural resource and social conditions, and descriptions of natural resource inventories that have been conducted.

This newsletter presents the five preliminary management alternatives we have developed for Exit Glacier. We welcome your thoughts on these preliminary alternatives and appreciate any time you can spend to help us improve them. If you like one alternative better than the others, tell us why. If you don't like any of the alternatives, feel free to combine or modify an alternative, or to develop a completely new alternative, to reflect your own vision for Exit Glacier.

It is important that this management plan be thoughtful, logical, and rooted in the reasons that Kenai Fjords was created. For this reason, we have included our park purpose statements to provide a context for evaluating the preliminary alternatives. The final plan should describe the future that best reflects all of these important values.

We'll make changes to the alternatives based on your input, comments we will receive from upcoming public meetings, and further research, and will present them in a draft Environmental Impact Statement. This document will be available for your review in 2003.

In late May and early June we will be hosting public meetings in Seward, Soldotna, and Anchorage to provide opportunities for dialogue about the preliminary alternatives. I encourage each of you to participate in these meetings. There will be short

presentations to familiarize you with the alternatives and then an opportunity to interact with members of the planning team. The meeting schedule and locations are:

May 29 – Seward

Kenai Fjords National Park Visitor Center
1212 4th Avenue (at small boat harbor)
Open House from noon to 8:00 p.m.
Presentations at 1:00 p.m. and 6:00 p.m.

June 3 – Soldotna

Kenai Peninsula Borough Building
144 N. Binkley Street
Public Meeting from 6:00 p.m. to 8:30 p.m.
Presentation at 6:30 p.m.

June 6 – Anchorage

National Park Service
Alaska Regional Office
2525 Gambell Street, 3rd floor conference room
Public Meeting from 6:00 p.m. to 8:30 p.m.
Presentation at 6:30 p.m.

Please send us your comments no later than July 1, 2002. A postage paid response form is included or see page 19 for information on other ways to get comments to us.

I would like to express my thanks to each of you for your continued support of Kenai Fjords National Park and your interest and participation in the Exit Glacier planning process. We look forward to hearing from you.

Anne D. Castellina
Superintendent

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Purposes of Kenai Fjords National Park

Kenai Fjords was designated as a National Monument in 1978. It became a National Park on December 2, 1980 when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). An excerpt from the enabling legislation states that Kenai Fjords National Park (KEFJ) shall be managed for the following purposes:

“To maintain unimpaired the scenic and environmental integrity of the Harding Icefield, its out-flowing glaciers, and coastal fjords and islands in their natural state; and to protect seals, sea lions, other marine mammals, marine and other birds and to maintain their hauling and breeding areas in their natural state, and free of human activity which is disruptive to their natural processes.”

The purpose of Kenai Fjords National Park, based in legislation, is to:

To insure the preservation, interpretation and study of the interrelated Harding Icefield and Kenai Fjords rainforest system and its associated population of seabirds and marine mammals. To provide for visitor enjoyment and access to the coastal fjords, Exit Glacier, and Harding Icefield in a manner that maintains them unimpaired.

Kenai Fjords National Park has national significance for the following reasons:

Kenai Fjords National Park preserves unimpaired an active icefield / fjord ecosystem containing an abundance of terrestrial and marine wildlife. Kenai Fjords National Park protects a dynamic landscape where visitors can experience up close glacial and biological change in a human timeframe. Kenai Fjords National Park contains rugged wilderness scenery created by a combination of the only subsiding coastal mountain range in the United States and the raw weather of the north Pacific. Relatively easy access to Kenai Fjords' varied resources makes them especially valuable for education, research, aesthetic, and recreational purposes.

Purpose and Need for the Exit Glacier Plan

The need for the Exit Glacier Visitor Experience and Resource Protection project arose as the result of a 1995 park planning document called the Development Concept Plan (DCP) for Exit Glacier. The purpose of the DCP was to predict future levels of park use, anticipate visitor and administrative facilities needed, and plan for those facilities. The plan recommended moderate development in the Exit Glacier area to accommodate a growing number of visitors. However, the DCP did not address the overall desired resource condition and visitor experience for Exit Glacier nor did it define thresholds that would trigger management actions to deter natural resource. The plan did recommend that a carrying capacity study be completed to avoid unacceptable impacts that may diminish the quality of the visitor experience resulting from predicted increases in visitation.

The purpose of the Exit Glacier Visitor Experience and Resource Protection project is to plan for future management of the area so that we can provide a high quality visitor experience while protecting natural and cultural resources. Specific goals are:

- 1) Determine the desired future resource conditions and visitor experiences;
- 2) Develop management strategies based on scientific information and public input to prevent unacceptable impacts from current and expected increases in visitation;
- 3) Conduct natural resource inventories to establish baseline data, and develop a monitoring plan; and
- 4) Balance visitor use with natural resources protection.

Management Zones

Management zones identify ways that different areas of Exit Glacier could be managed to achieve a variety of resource and social conditions and to serve recreational needs. Each zone includes specific goals for natural resource and social conditions, and for different types and levels of visitor use and park management. The Park would take different actions in the different zones with regard to the types and levels of conditions. Alternatives for future conditions and management at Exit Glacier have been developed by placing these zones in different configurations on the ground (see Descriptions of Preliminary Alternatives section). The planning team has developed five potential management zones. Key differences between the zones are outlined in Table 1. Full descriptions for each zone can be found on our website at www.nps.gov/kefj/verp.htm.

How to Evaluate the Preliminary Alternatives

The National Environmental Policy Act (NEPA) and the National Park Service's planning process require that we examine alternatives for future management of Exit Glacier. The alternatives must be consistent with the purposes for which Kenai Fjords National Park was established, must be reasonable, and must be consistent with National Park Service management policies and existing legislative mandates (e.g., Alaska National Interest Lands Conservation Act, Endangered Species Act, National Historic Preservation Act). In developing the alternatives, we are also guided by several constraints or “givens”:

1. The collection of fees will continue at least until 2004. This is based on congressional legislation and regional mandates.
2. Overflow parking is not allowed along the road for safety reasons and to prevent natural resource impacts.
3. Winter use of the Exit Glacier road is based on an informal agreement/partnership with other agencies (e.g., this is why the road is not plowed). Changes in winter public road use would require agreement with partners.
4. Budget may constrain immediate implementation of proposed actions, but not necessarily in the future since we can request additional funding.
5. Parts of the study area are considered suitable for wilderness designation; therefore actions cannot be taken that would preclude such designation.

Table 1. Summary of Key Differences Among Management Zones

	Rustic Development	Pedestrian	Hiker	Backcountry Semi-Primitive	Backcountry Primitive
Resource Conditions					
Evidence of Human Use	Common, apparent year-round, long-term but does not dominate landscape	Common, apparent year-round, long-term but does not dominate landscape	Occasional, long-term; high levels of human use are evident nearby	Uncommon, short-term; human use usually evident in the distance	Rare, impacts are transient; human use may be evident in the distance
Impacts from Development and Infrastructure	Allowed	Allowed	Occasionally allowed	Seldom allowed	Rarely allowed
Intrusions on Natural Soundscape	Can be expected often inside and outside the zone	Can be expected often from outside, but of lower intensity and less often from inside the zone	Periodic, low intensity intrusions from outside the zone; uncommon from inside the zone	Natural sounds predominate; intrusions are rare, of low intensity and mainly from outside the zone	Natural sounds predominate; intrusions are rare, of low intensity and mainly from outside the zone
Natural Processes	May be disturbed to protect infrastructure and resources	May be disturbed on a limited basis to protect infrastructure and resources	Disturbance is uncommon and of small scale	Disturbance is rare and only in extreme cases	Disturbance is rare and only in extreme cases
Social Conditions					
Encounters with Other Visitors and Staff	Frequent during daylight hours; significantly decreased at night	Often during daylight hours; significantly decreased at night	Occasional during daylight hours; rare at night	Seldom during daylight hours and at night	Rare during daylight hours and at night
Potential for Solitude	Very low	Low	Moderate	High	Very High
Group Size (a large group is 12 or more)	Frequently encounter large groups	Frequently encounter large groups	Occasionally encounter large groups	Small (less than 12 people)	Small (less than 12 people)
Challenge and Adventure	Low	Low	Moderate	High	High
Time Commitment	Short	Moderate	Moderate	Long	Long
Visitor Use					
Motorized and Mechanized	Yes	No (except rarely for administrative use)	No	No	No
Camping	Yes in designated campgrounds	Yes in designated campgrounds	No	Yes, with restrictions	Yes, dispersed
Technical climbing	No	No	Yes, with restrictions	Yes	Yes
Development					
Trails	Paved or hardened, free of obstacles, smooth surface	Hardened or compacted, free of obstacles, smooth surface	Natural surface, obstructions may be present, surface may be rough	No constructed trails, but routes may be marked	None
Roads and Parking Lots	Paved	Jeep trail, for administrative use only	None	None	None
Structure Purposes	Resource management, administration, safety, comfort, education	Resource management, administration, safety, comfort, education	Resource management, administration, safety, education	Resource management, administration, safety	Resource management, administration
Structure Size	Large	Medium	Small	Small	Very Small
Structure Visibility	High	High	Moderate	Very Low	Very Low
Structure Habitability	Habitable	Not for habitation	Not for habitation	Not for habitation	Not for habitation
Management Activities					
Trail Maintenance	Very high	High	Moderate	Markers occasionally maintained	None
Signs	Very common	Common	Uncommon	Rarely, for extreme resource protection and safety situations	None
Interpretation	On-site, may include exhibits, staff presence, formal programs, signs	On-site, may include exhibits, staff presence, formal programs, signs	On-site consists of staff presence, formal programs, and temporary signs; off-site education is important	Off-site is important; occasional on-site interpretation by park staff may occur	Off-site is very important; rare personal on-site
Mgmt. Actions for Resource Protection	Moderate priority	Moderate priority	High priority	High priority	Very high priority
Mgmt. Actions for Safety and Visitor Needs	High priority	High priority	Moderate priority	Low priority	Very low priority
Mgmt. Actions for Visitor Experience of Natural Setting	Low priority	Moderate priority	High priority	High priority	Very high priority

Four preliminary alternatives are outlined in this newsletter along with a “no action” alternative. In developing the preliminary alternatives, the planning team attempted to provide a full range of management approaches. Each alternative is built around an underlying concept, which was used to guide different configurations of management zones. Some alternatives incorporate all the management zones and some do not. In addition, for each alternative we developed a summer management scenario and a winter management scenario. The accompanying descriptions and maps illustrate the alternatives.

Implementation of any alternative is dependent on funding. While we can request additional funds, the plan does not guarantee that the money will be forthcoming. The plan will establish a vision for the future that will guide year to year management of Exit Glacier, but full implementation could be many years in the future.

Descriptions of Preliminary Alternatives

Five preliminary alternatives are presented including a “no action” alternative that would continue existing conditions. The “no action” alternative serves as a baseline for comparison of the other four alternatives. Each alternative includes two maps of the Exit Glacier area, one for summer and one for winter. The description for each alternative includes a general concept statement, key actions that would be taken in summer and winter, and general implications for natural resources, visitor experience, and socioeconomic conditions. The maps show the zones under the alternative concepts; however, they do not show all of the management actions being proposed under each alternative. Table 2 summarizes key differences among the alternatives.

Actions Common to All Action Alternatives

The following management actions would be implemented in all of the action alternatives (not under the “No Action” Alternative).

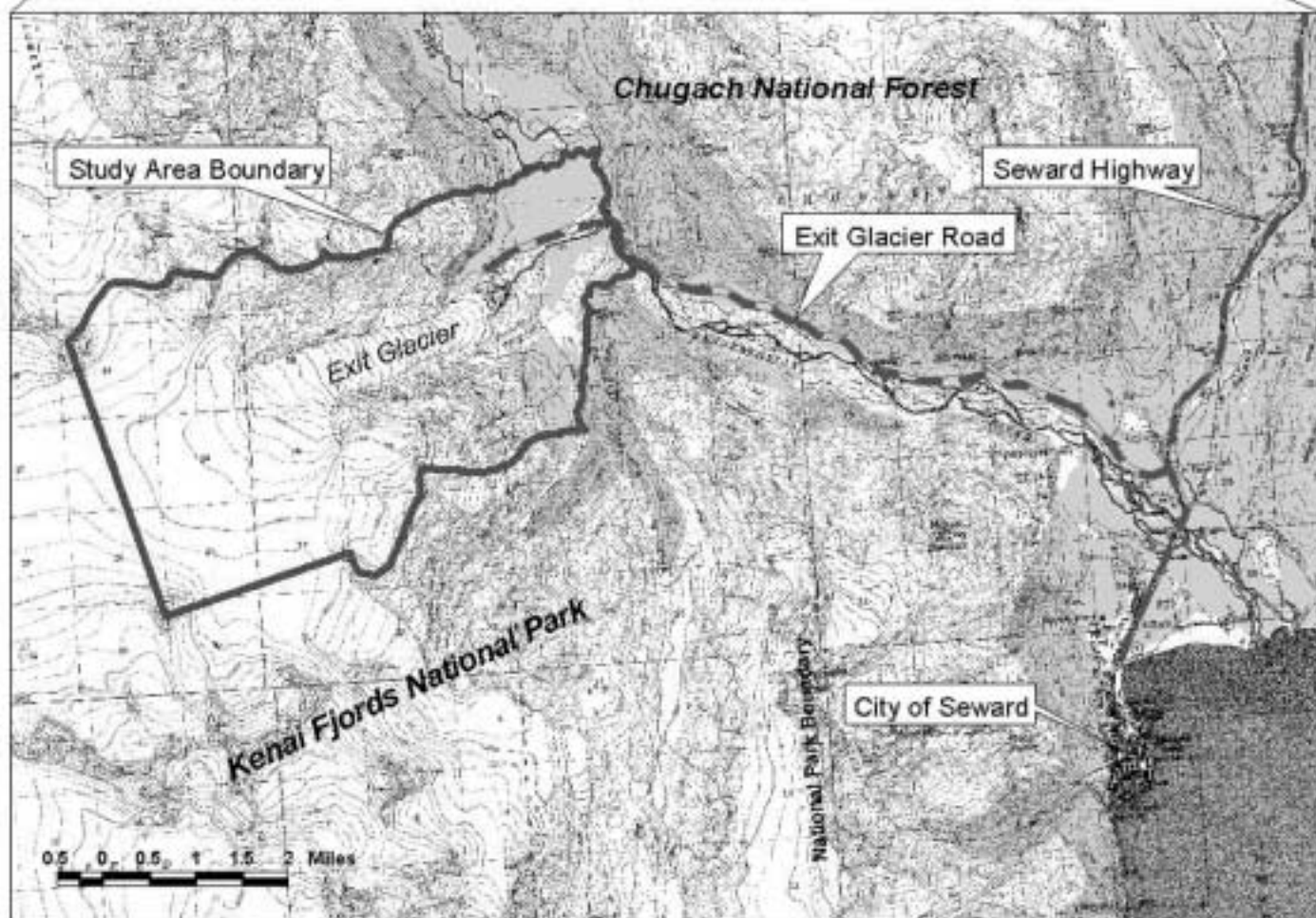
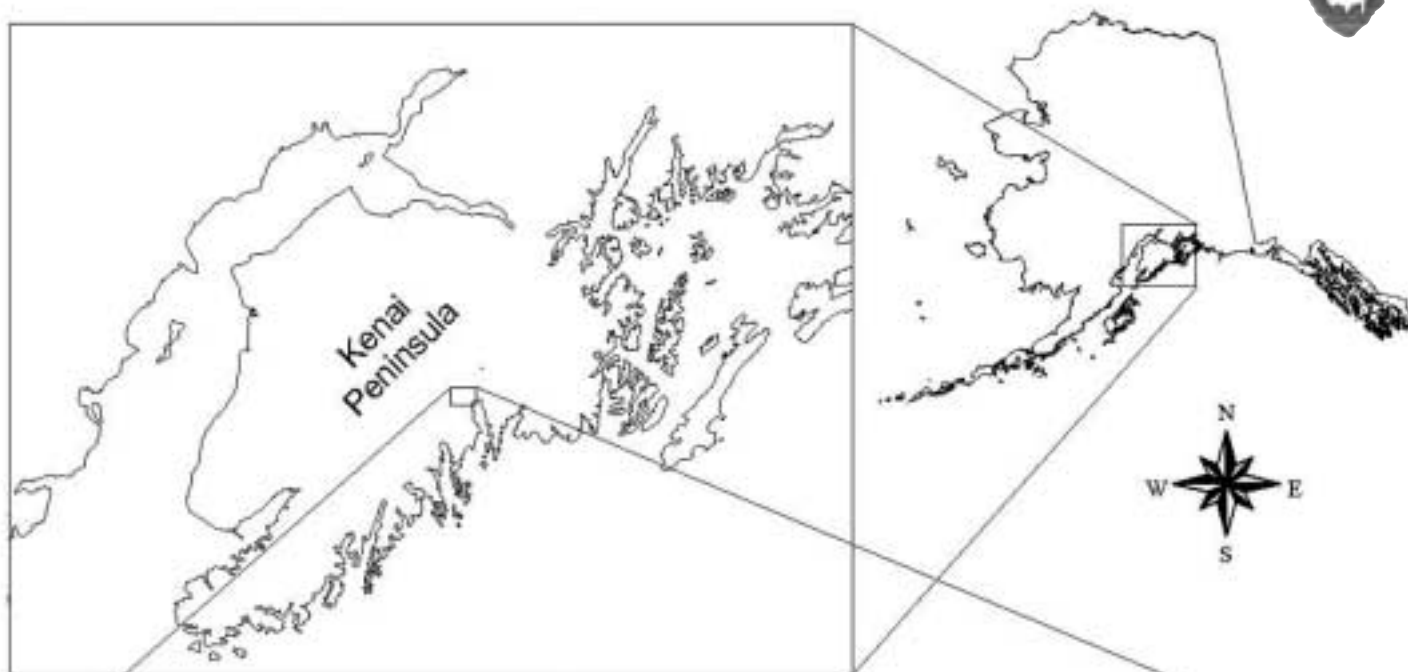
These common actions are generally based on existing laws, regulations, and NPS policies.

- The Exit Glacier area would be managed to assure long-term protection of its natural and cultural resources by ensuring that impacts from human activities and development are minimized.
- Inventories of natural resources for baseline information would be completed. These inventories are necessary for the park to effectively manage and protect the resources.
- Long-term monitoring of natural resources and social conditions would be implemented. Indicators and standards would be identified. If standards were exceeded, then appropriate actions would be initiated to ensure that the conditions of the management zones are not violated.
- Mitigation measures would be identified and implemented for all impacts resulting from proposed actions. For example, revegetation with native plants will mitigate an action that impacts vegetation.
- Temporary, seasonal, or emergency closures may occur in any zone under the Superintendent’s orders for such purposes as visitor safety and resource protection, according to 36 CFR section 13.30.
- Visitor use would be managed to ensure that unacceptable impacts to resources or visitor experience do not occur. As such, management of visitor use could intensify to maintain desired zone conditions.
- Visitors would be allowed to touch the glacier where it is safe. In the Rustic Development Zone, all new structures would be accessible to people with disabilities, and existing structures would be modified to meet accessibility standards.
- Commercial visitor services and facilities would be limited to those that are necessary and appropriate for public use and enjoyment of Exit Glacier.



Courtesy of NPS

Exit Glacier Project Study Area and Vicinity



“No Action” Alternative

This alternative would continue current management at the Exit Glacier area of Kenai Fjords National Park. It provides a baseline for evaluating the changes and impacts of the action alternatives. Park managers would continue to provide for visitor use and respond to natural and cultural resource management concerns according to current policy and legal requirements. There would be no change in management direction. The accompanying map shows how the Exit Glacier area is currently managed. Existing facilities include:

- an entrance road and a parking lot that holds approximately 100 vehicles
- a campground with 12 walk-in tent sites
- a visitor contact station appropriate for small groups
- new restrooms with flush toilets
- a network of trails (paved trail to glacier, a nature trail, the Upper Loop Trail, and the Harding Icefield Trail)
- an emergency shelter at the top of the Harding Icefield Trail
- three cabins used for employee housing in summer; in winter one cabin is open for public use

Actions:

- Visitor use would continue to be managed as it is now based on the 1995 DCP. Several of the recommended actions in the DCP have been implemented (i.e., expanded parking, new restrooms).
- All existing facilities, including trails, campground, parking area, cabins, and visitor contact station would be maintained at current levels.
- The planned gathering pavilion and larger visitor contact station would be constructed.
- The area would remain unzoned, although more remote areas

would be wilder and more primitive than those near developed areas.

- Visitor orientation and interpretation would continue at current levels.
- Natural resource impacts would be managed as they are identified.
- The parking lot would not be further expanded.
- Use of motorized vehicles in winter would continue to be permitted on the road corridor, Resurrection River, Exit Creek, and the outwash plain.

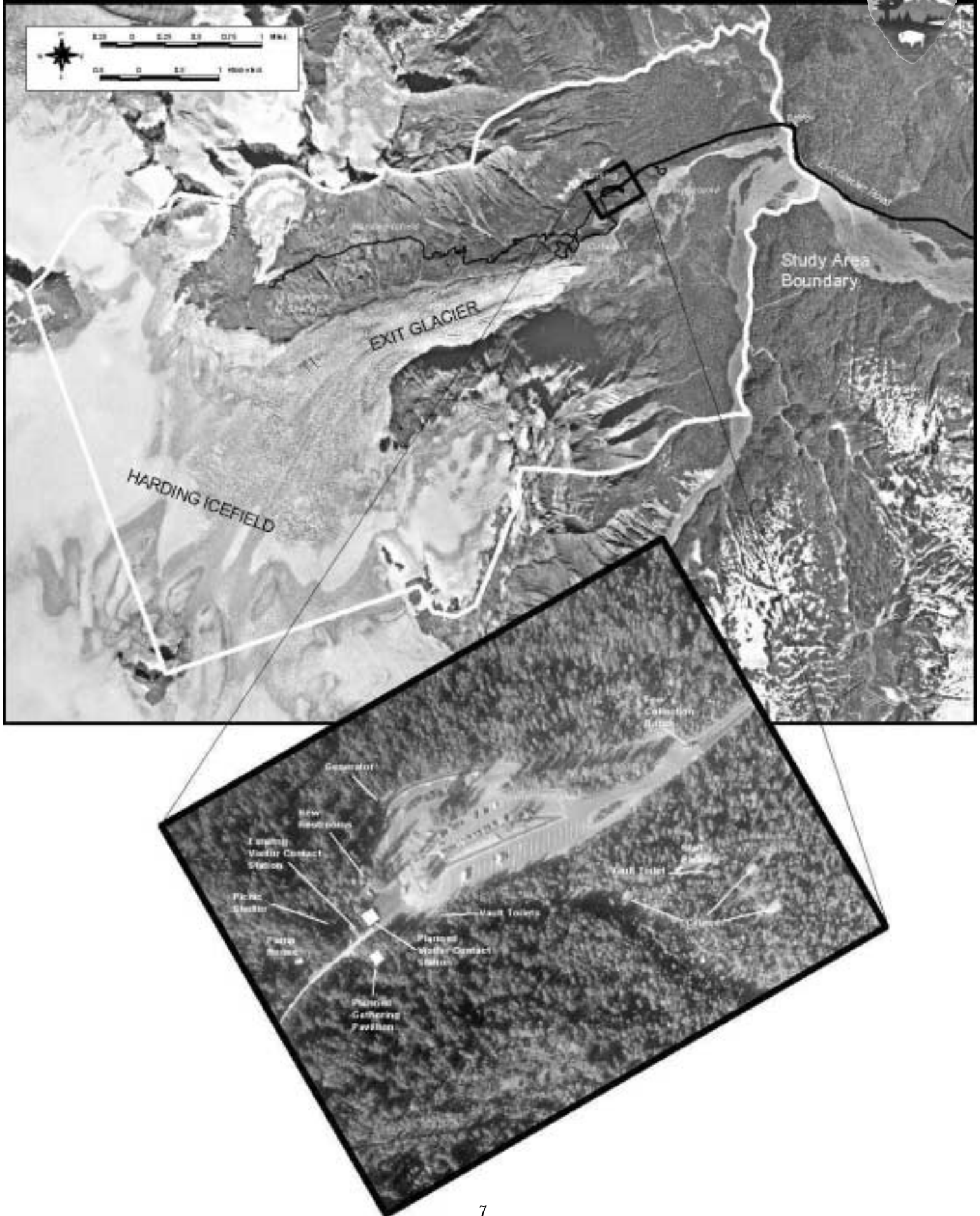
Implications:

- Increasing visitation would likely result in increased negative impacts on natural resources (e.g., wildlife disturbance, vegetation trampling, noise pollution, and soil compaction).
- Small incremental impacts and development over time would add up to large changes that could diminish the visitor experience.
- If visitor use levels continue to increase, the ability of visitors to experience solitude and quiet could diminish. Crowding, especially on trails, could increase.
- Visitors who enjoy Exit Glacier under current management would remain content.
- The parking lot could fill to capacity on busy days, requiring visitors to wait or be turned away.
- The current range of uses would continue to be accommodated, and visitors seeking different kinds of experiences would continue to use the same areas, so potential for conflicts would remain or increase.
- The park would continue to deal with issues on a crisis-by-crisis basis without benefit of a long-range plan with established direction and priorities.



Courtesy of NPS

"No Action" Alternative



Alternative A

This alternative would focus on interpretation, education, and non-motorized recreation and would rely more on increased staffing and program development than on physical development. Infrastructure development would be limited to replacement of existing structures. However, replacing the current visitor contact station with a larger education center, adding a gathering pavilion and constructing a small viewing platform overlooking the wetlands along the Resurrection River, would be encouraged. The goal of this concept is to transform Exit Glacier from a “photo-op” to an education experience. Alternative methods of transportation to private vehicles would be encouraged. This may be accomplished by offering incentives to visitors or subsidizing an alternative transportation system. This alternative concept remains the same in winter, regardless of the extent of possible plowing of Exit Glacier Road outside of the Park. The road would not be plowed into the park. In general, there would be increased opportunities for non-motorized recreation and possible benefits to concessionaires providing non-motorized guided tours.

Summer

The **Rustic Development Zone** would be located around existing development.

Actions:

- Upgrade or replace the current visitor contact station to create a new Education Center.
- Construct the new gathering pavilion in the vicinity of existing facilities as currently planned.
- Possibly install a new wetland viewing platform.
- Possibly subsidize an alternative transportation system to bring visitors to Exit Glacier from Seward.

The location of the **Pedestrian Zone** would allow for visitors of all physical abilities to access the glacier, and it provides an opportunity for additional interpretive signs and structures.

Actions:

- Improve trails from parking lot to glacier to increase handicap access.
- Install additional educational signs and exhibits.

The **Hiker Zone** would be applied so that it follows the Harding Icefield Trail corridor and the Exit Creek corridor.

Actions:

- Add a spur trail to the Harding Icefield Trail to allow access for ice climbing on the glacier.
- Install additional educational and interpretive signs along the Harding Icefield Trail.

The majority of the Exit Glacier area would be allocated to the **Backcountry Primitive Zone** to maximize the primitive experience for visitors. There would be no ice climbing allowed at the glacier terminus due to safety reasons, an exception to this zone.

Actions:

- No actions would be taken in this zone.

Winter

Placement of the Rustic Development Zone would remain unchanged from the summer alternative. Access to the parking area

by motorized vehicles would continue.

Actions:

- Staff the Education Center for winter operation.
- Additional overnight accommodations (e.g., yurts) could be offered through a concessionaire, in addition to the existing public use cabin.
- Motorized vehicles would be allowed only on the entrance road and in the parking lot.

The **Pedestrian Zone** would be applied to provide access to the glacier and outwash plain via packed trails.

Actions:

- Pack trails from parking lot to glacier.
- Close all areas to motorized vehicles and enforce closures.

Allocating a **Backcountry Semi-primitive Zone** as shown would allow for marked ski routes.

Actions:

- Mark ski routes.
- Close all areas to motorized vehicles and enforce closures.

The majority of the study area would be zoned as **Backcountry Primitive** to allow for maximum winter wildlife protection.

Actions:

- Close all areas to motorized vehicles and enforce closures.

Implications:

Natural Resources

Impacts on natural resources would be low because most new development would replace existing structures. Minimal impacts to vegetation, soils, hydrology, and wildlife would occur with the upgrade of the visitor contact station to a larger Education Center, construction of the gathering pavilion and wetland viewing platform, and trail improvement. In winter, impacts to wildlife could increase due to increased visitation as a result of overnight accommodations. However, with decreases in motorized use, impacts to wildlife would be reduced. Overall, impacts on natural resources would be limited because stringent resource standards would apply across most of the study area.

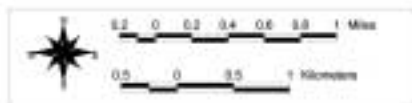
Visitor Experience

Visitor use could increase at a moderate level. Increased educational opportunities would exist for visitors through the Education Center and additional interpretive signs. Access to wetlands and the glacier would be enhanced with new and improved trails. The parking lot maintained at the current size may limit the number of visitors entering the area, and visitors may need to use an alternative transportation system. In winter, visitation could increase with the availability of overnight accommodations. Access to backcountry skiing opportunities would increase as would non-motorized access to glacier via packed snow trails. Existing motorized use would be excluded everywhere but on the road and parking lot.

Socioeconomic Conditions

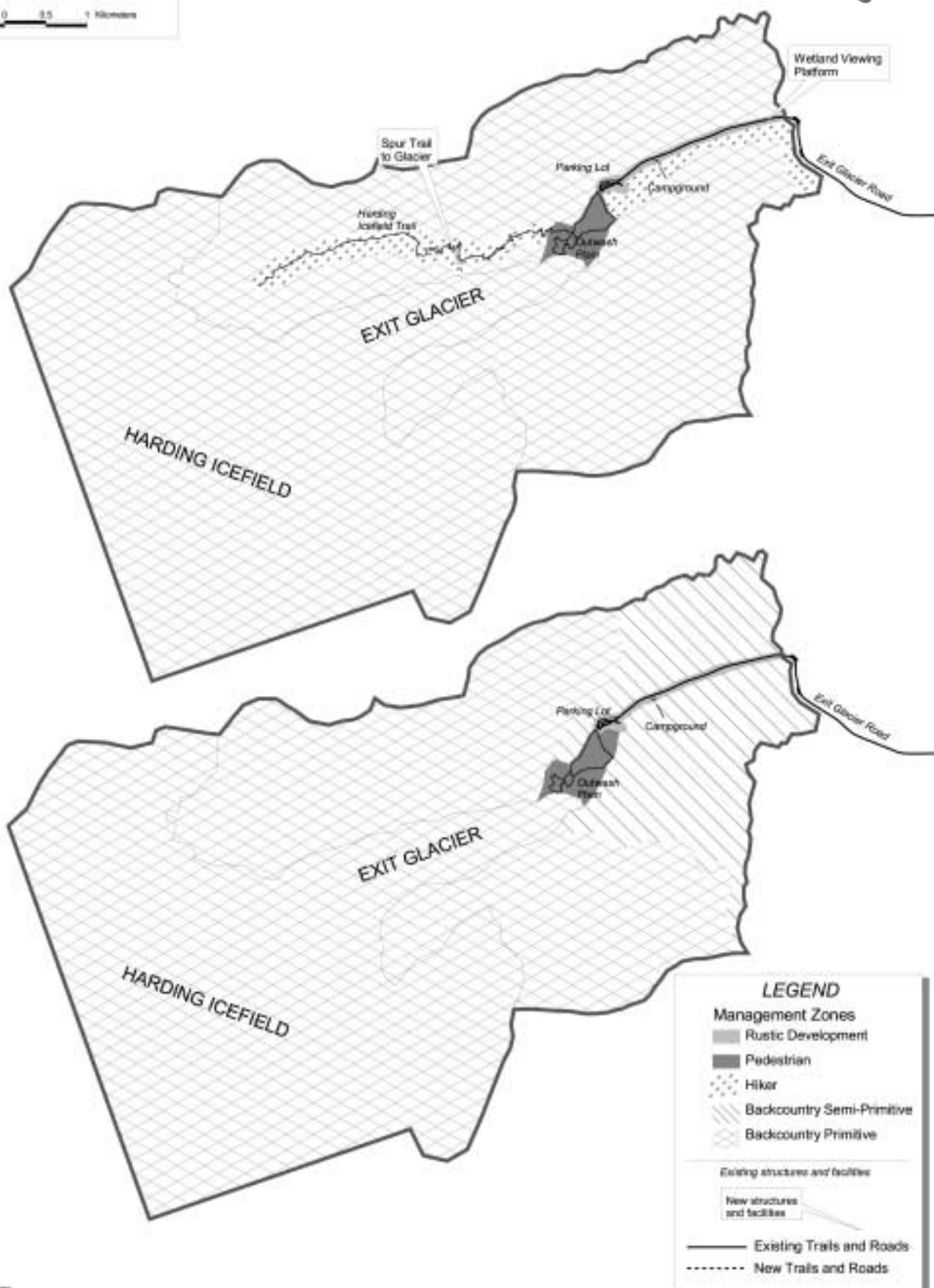
This alternative would allow for a small increase, or potentially a decrease, in use of the area. Focus on interpretation, education, and non-motorized recreation may attract more visitors for longer stays and enhance eco-tourism opportunities. Alternatively, restrictions on development and designating a large area as backcountry

Preliminary Alternative A



SUMMER

WINTER



primitive could limit increases in visitation, impacting local/regional economic growth. A subsidized alternative transportation system to bring more visitors to Exit Glacier may provide for concessionaire contracts and local jobs. An increase in park funding and staff would be needed to upgrade and manage the new Education Center, improve trails and educational exhibits, and finance and manage alternative transportation. In winter, providing overnight accommodations would present an economic opportunity for concessionaires, but those with snowmachine guided tours would be adversely affected. An increase in funding and staff would be needed for winter operation of the Education Center, managing concessionaire operations, maintaining trails, and enforcing motorized use closures.

Alternative B

This alternative promotes increasing the infrastructure of the Exit Glacier area to accommodate a greater number of visitors and recreational activities year-round. Access would be maximized in both summer and winter for a wide range of motorized and non-motorized uses and for handicapped visitors. Commercial transportation would be encouraged for access, but parking is also expanded. The trail system, including a bike path, would be expanded to provide greater access to the glacier and to connect with U.S. Forest Service and State trail systems. Possible overnight facilities to be developed would include a new RV campground, an expanded tent campground, cabins, and a lodge. Food services may be provided. Communication capabilities, such as telephone and electric service, may be improved. Visitor demand and economic feasibility will determine if actions will be implemented.

Summer

The **Rustic Development Zone** would be applied to maximize commercial access with minimal impacts to natural resources. This zoning would allow for increased handicapped access to the glacier. The majority of this zone would be applied around existing development. A separate area at the top of the Harding Icefield Trail would also be zoned as Rustic Development to allow for a possible lodge/food concession. Visitor demand and economic feasibility will determine if actions will be implemented.

Actions:

- Add an RV campground and increase the size of the current tent campground.
- Increase parking facilities along the entry road.
- Establish a bike trail along the entry road, ending at the parking lot.
- Encourage summer commercial transportation to the Exit Glacier area.
- Install a new paved trail for mechanized access to the outwash plain and glacier (e.g., electric carts for handicap access, wheelchairs, and strollers).
- Possibly build a rustic 12-15 person lodge with food service (e.g., chalet at top of Harding Icefield Trail) to be run year-round as a concession.
- Possibly build additional public use cabins (near the lodge at the top of Harding Icefield Trail).
- Possibly improve communication capabilities (e.g., telephone and electric service).

The **Pedestrian Zone** would be applied to provide a transition between the Rustic Development Zone and the Hiking Zone. As allocated this zone would include the outwash plain because development in that area is not feasible due to shifting stream channels but allows for hardened trails to accommodate large groups.

Actions:

- Harden and widen trails for easier accessibility to the glacier and to accommodate large groups.

The **Hiker Zone** would be allocated to provide a one-half mile buffer on either side of the Harding Icefield Trail that eliminates camping along the trail and increase scenic opportunity. Hiker Zone corridors also would be allocated to allow for increased trail hiking opportunities to Paradise Valley, Goat Ridge, and in the lowland forest.

Actions:

- Construct new trails to increase hiking opportunities: Forest Loop Trail north of the road, Goat Ridge Trail, Paradise Valley Trail, and Exit Creek Trail.
- Increase access to the glacier from the Harding Icefield Trail by providing more access trails.

The **Backcountry Semi-primitive Zone** would be applied to include areas where development is not feasible due to steep terrain, avalanche chutes, and wetlands. This zone would serve as a transition zone between the more developed zones and the most primitive zone, help disperse visitors, and allow for possible marked routes.

Actions:

- No actions would be taken in this zone.

The area zoned **Backcountry Primitive Zone** would be allocated as such to preserve the viewshed and wilderness feel. This area would include the Harding Icefield and the glacier since they are not suitable for trails or structures due to shifting ice and crevasses.

Actions:

- No actions would be taken in this zone.

Winter

The **Rustic Development Zone** would be applied the same in winter as in summer and would maximize visitor infrastructure and opportunity for commercial development.

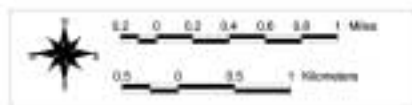
Actions:

- The road and parking lot could be plowed or, if not plowed, commercial transportation (i.e., snow coach) would be encouraged.
- Maintain trails to glacier for handicap access. Provide overnight accommodations, through concessionaires as in summer, that meet a variety of needs (lodge, cabins, and campground).
- Motorized use would be allowed anywhere in this zone.
- Allow aircraft landings to transport visitors and supplies to the lodge at the top of the Harding Icefield Trail.

The **Hiker Zone** would be allocated to keep impacts in corridors and provide visitors with a more natural experience in the outwash plain (which is zoned Pedestrian in summer and thus a more developed experience). Other changes to this zone as compared to summer would include zoning the corridor along the Harding

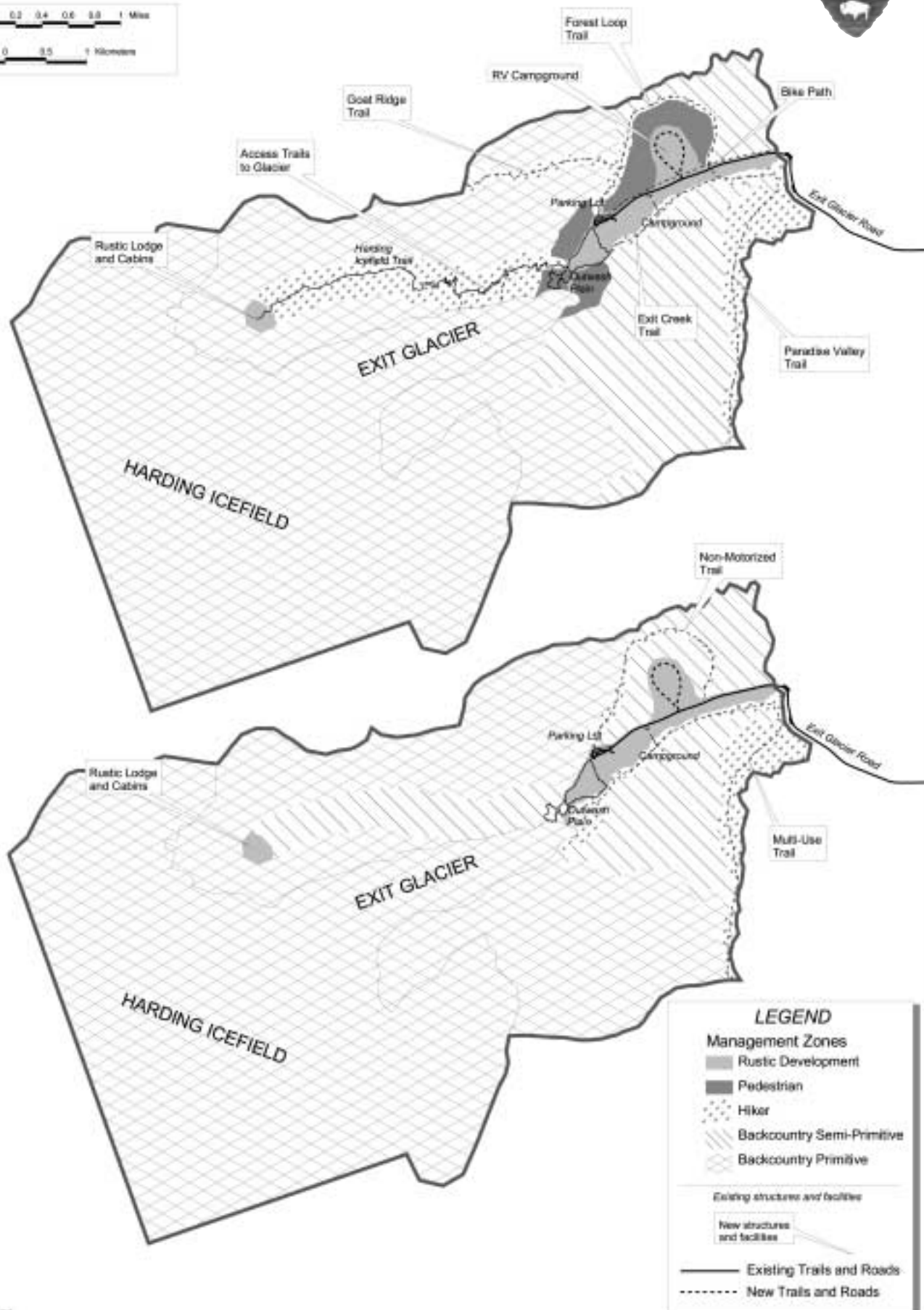


Preliminary Alternative B



SUMMER

WINTER



Icefield Trail to Backcountry Semi-primitive and the corridor along the trail to Goat Ridge to the Primitive Zone. Both of these trails would be difficult to maintain in winter due to steep terrain. An exception to this zone description would be to allow motorized use in designated areas in winter.

Actions:

- Allow motorized use access to the outwash plain at the glacier terminus.
- Designated multi-use trails in Exit and Paradise Creeks.
- The Forest Loop Trail north of the road (described in the summer scenario) would be designated for non-motorized use only as a groomed ski trail.

The area zoned as **Backcountry Semi-primitive** would allow for visitor use but would maximize protection of resources and provides for a more natural experience than the more developed zones. The corridor along the Harding Icefield Trail would be allocated to this zone in winter to allow for a possible marked route.

Actions:

- Possibly marking routes, such as the Harding Icefield Trail.
- Close all areas to motorized vehicles and enforce closures.

Most of the area would be zoned as **Backcountry Primitive** since it is not suitable for development or maintained routes in winter due to steep terrain and avalanches. It also would allow for maximum resource protection under this concept.

Actions:

- No actions would be taken in this zone.

Implications:

Natural Resources

This alternative would have the greatest impact on natural resources because it would allow for the largest increase in visitation and the most development. Loss of vegetation, displacement of wildlife and habitat loss, and soil compaction would result from construction of new facilities. A food concession can lead to trash and wildlife problems, such as habituation. More development and higher visitation would result in decreased water quality, increased air pollution, increased noise pollution, visual intrusions on the landscape, and development of social trails. Early successional plants colonizing the outwash plain would be impacted as more people walk through the area. Camping could increase in areas such as Paradise Valley, resulting in possible impacts to soils, vegetation, and wildlife. Impacts on natural resource would occur 24 hours a day as more visitors stay overnight, compared with only the current daytime impacts. In winter, use would be concentrated in areas of development, not dispersed as in summer, resulting in increased localized natural resource impacts. Increased winter use could displace wildlife from important winter habitat and movement corridors. Use of lights at night would decrease the quality of the night sky. Aircraft landings would add to noise pollution, air pollution, visual intrusions, and wildlife disturbance.

Visitor Experience

This alternative would allow for the largest increase in visitation and use of the area. The potential for visitation to increase exists with improved infrastructure, possibly resulting in increased crowding and noise. The extent of development proposed, and

increases in visitor use, would diminish the backcountry experience and sense of adventure that currently exists. The evidence of human use on the landscape would become more evident, which would diminish visitors' experience of nature. Roads, cars, crowds, parking lots, and buildings would impact scenic views. Handicap access to the glacier would be improved. Increased trail/hiking opportunities would provide access to new areas of the park (wetlands, Goat Ridge, Paradise Valley), possibly reducing crowding on the Harding Icefield Trail. The increase in infrastructure and visitors in the Rustic Development Zone at the top of the Harding Icefield Trail would impact the natural setting experience of visitors in the Backcountry Primitive Zone. In winter, visitor access to the glacier would be improved. Visitors would experience an increase in noise pollution, air pollution, and impacts to scenic views with increased motorized use on new route. Use conflicts between motorized and non-motorized users could increase in areas such as the outwash plain at glacier terminus.

Socioeconomic Conditions

This alternative would allow for the largest increase in use of the area and the most opportunities for concessionaire operations. There would be increased opportunities for concessionaires to operate guided tours, transportation, lodging, and food services in summer and winter. An increase in visitation would be beneficial to the local economy as well. An increase in park funding and staff would be needed to construct and manage increased infrastructure, monitor impacts to natural resources, and increase law enforcement patrols. Regulatory monitoring would also increase (e.g., for food preparation and at RV sites with dump stations).



Courtesy of NPS

Table 2. Summary of key differences among alternatives.

Alternative/ Topic	No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Summary of Proposed Actions	Continue current management direction, guided by the 1995 Development Concept Plan. All existing facilities would be maintained at current levels. No new services or facilities would be provided to meet increased levels of use.	Focus would be on, education interpretation, and non-motorized recreation. Development would be limited to replacement of existing structures. Alternative transportation to bring visitors to Exit Glacier would be encouraged.	This alternative promotes increasing infrastructure (such as a lodge, food service, trails, and campgrounds) to accommodate a greater number of visitors and recreational activities year-round. Access would be maximized in both summer and winter for a wide range of motorized and non-motorized uses.	This concept would return the area to the way it was 15 years ago before road and bridge with emphasis on ecosystem restoration and imposing fewer regulations on visitor use. Motorized vehicle access would be blocked in summer and winter at the bridge. All structures, except a year-round backcountry visitor contact station, would be removed.	This alternative would emphasize increased accessibility to a wide variety of environments through a network of new trails and amenities to support small groups. In winter, the focus would be on non-motorized use of groomed trails and availability of rustic overnight accommodations
Implications	There would be Increased potential for resource damage with increased use. Current use patterns would continue and potential for conflict among users could increase. Increased congestion and decreased opportunities for quiet and solitude would increase with higher levels of visitation.	Impacts on natural resources would be low. Visitor use could increase year round at a moderate level with additional educational opportunities, increased access to the glacier, and overnight accommodations in winter. Existing motorized use in winter would be excluded everywhere but on the road and parking lot.	Potential for impacts to natural resources would be highest with this alternative because it allows for the largest increases in visitation and development. The backcountry experience and sense of adventure that currently exists would be diminished. There would be increased opportunities for concessions such as guided tours, lodging, and transportation.	Impacts to natural resources would be the lowest in this alternative because very high resource and use related standards would be placed across almost the entire project area. There would be the lowest potential for visitor use and development, resulting in the fewest visitor related impacts on natural resources. No access for motorized vehicles would mean that not all visitors could easily access the area.	Impacts on natural resources under this alternative would be moderate. An intermediate level of visitor related impacts would occur as more trails bring more people out to remote areas. Visitor use would be expected to increase with an expanded trail system and improved amenities. Visitors would have access to areas that are currently difficult to experience.



Courtesy of NPS

Alternative C

The goals of this alternative are twofold: 1) ecosystem restoration and 2) imposing fewer regulations on visitor use. This concept would return the area to the way it was 15 years ago before the road and bridge into the Exit Glacier area were constructed. In this alternative access for motorized vehicles into the park in summer and winter would be eliminated. The road beyond the bridge would be replaced with a hardened footpath leading to the glacier terminus. No other trails in the Exit Glacier area would be maintained. All structures, except a year-round backcountry visitor contact station, would be removed. Signage would be minimized, no entry fees would be collected, and minimal visitor services would be provided. Visitors to the Exit Glacier area would be free to hike where they wished and camp anywhere except along the access trail to Exit Glacier. If human caused impacts to natural or cultural resources are detected, mitigation would be accomplished through specific area closures or restricting visitor numbers.

Summer

The **Pedestrian Zone** would be allocated to provide a hardened path to allow visitor access, including wheelchair/handicap access, to the glacier. There would probably be enough visitors using the area to justify maintaining a hardened path.

Actions:

- Eliminate road and change it to a hardened path all the way to glacier terminus.
- Motorized vehicle access would be blocked at the bridge at the entrance to the park.
- Remove all infrastructure, including public bathroom facilities, parking lot, signs, etc.
- Road through wetland area would be changed to a boardwalk or trail allowing for natural hydrologic flow.
- Restore or revegetate disturbed areas.

The **Hiker Zone** would be applied alongside the Pedestrian Zone to eliminate camping along the trail and at the face of the glacier. An exception to the zone description would be to allow the visitor contact station to be used as a habitable structure.

Actions:

- Remove all infrastructure, other than the visitor contact station, including cabins, campground, signs, etc.
- Remove trails or just do not maintain.
- Restore or revegetate disturbed areas.

The majority of the Exit Glacier area would be zoned **Backcountry Primitive** for maximum natural resource protection and to enable visitors to experience the area as it was before development and other human impacts occurred. This type of experience is not explicitly provided for elsewhere in the region.

Actions:

- Remove trails or just do not maintain.
- Restore or revegetate disturbed areas.

Winter

The allocation of management zones would remain the same for winter as for summer and is shown on the same map. This alternative in winter would allow only non-motorized activities.

Motorized vehicles would be blocked at the bridge and the use of motorized vehicles anywhere in the Exit Glacier area would be discouraged. The only two actions taken under the winter alternative would be to staff the visitor contact station with a backcountry ranger and to eliminate motorized vehicle access.

Implications:

Natural Resources

Impacts to natural resources would be the lowest in this alternative because very high resource and use related standards would be placed across almost the entire project area. This alternative would have the lowest potential for visitor use, access, and development, resulting in the fewest visitor related impacts on natural resources. Alternatively, impacts to natural resources may increase with fewer restrictions and infrastructure. Impacts that would be likely to occur include development of social trails, resulting in vegetation impacts, and dispersed camping impacts, such as soil compaction, vegetation damage, and disturbance of wildlife. In winter, air quality and the soundscape would improve with reduced motorized use.

Visitor Experience

Visitor use and facilities in this alternative would be greatly reduced. Not all visitors would be able to easily access the area. Visitors may be displeased with lack of facilities. No designated campground would be available. Visitors would not be provided with maintained trails to access backcountry areas. However, the sense of adventure and ability to find solitude in a backcountry area would be restored. In winter, use of motorized vehicles would not be allowed anywhere in the project area.

Socioeconomic Conditions

This alternative would result in the lowest use of the area. Decreased visitation may have adverse effects on the local economy, but it would provide the greatest incentive to increase facilities outside the park. This alternative would require a parking area outside the park boundary or alternative transportation to shuttle visitors. This would provide an opportunity for concessionaire operated transportation. An increase in park funding and staff would initially be needed to conduct ecological restoration, and later to monitor natural resource impacts.



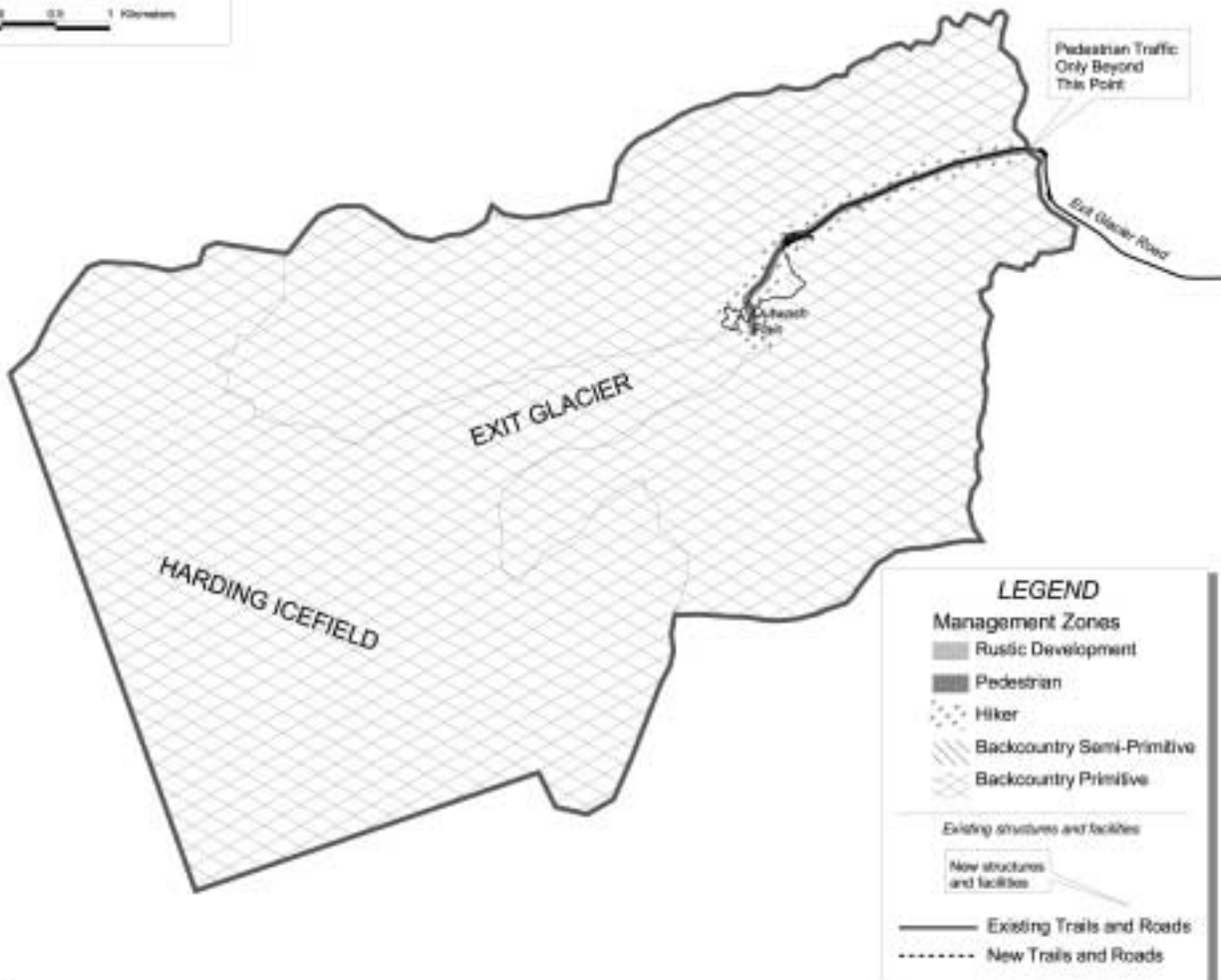
Courtesy of NPS



Preliminary Alternative C



SUMMER / WINTER



Created by: Mike Temeau, 3/27/02



Courtesy of NPS

Alternative D

This alternative would provide access to a variety of environments, especially unique features such as the glacier and icefield. Access would be easy to moderate with limited challenge through a system of well-marked and maintained trails. Amenities such as restrooms, coffee shop, and bookshop would be available at a well-developed trailhead. A minimum amount of interpretive facilities would be available beyond the trailhead. This alternative would support ecotourism by increasing accessibility to a wide variety of environments and increasing amenities to support small groups spread throughout the area (rather than focused on a hike to the glacier and back). In winter, the focus would be on non-motorized use of groomed trails and availability of rustic overnight accommodations. Winter motorized use would be allowed for transportation purposes on the road in the Developed Zone. Otherwise, motorized use would not be compatible with the non-motorized focus of this alternative. The road and parking lot inside the park would not be plowed.

Summer

The **Rustic Development Zone** would encompass the existing road with a corridor wide enough to allow for pullouts, trailheads, and a small parking lot. It also would encompass the existing ranger station, picnic area, campground and parking lot. Beyond the parking lot, the zone would follow the existing paved trail to the Harding Icefield Trail junction, a location where visitors can get a good view of the glacier.

Actions:

- Install bike path along north side of road corridor, ending at the parking lot.
- Harden and widen segment of trail between end of paved trail and the Harding Icefield Trail junction.
- Build parking area at the new trailhead along the road. This can also serve as overflow parking for the main lot. This parking area would serve two new trails (described in the Hiker Zone) to the north and south of the road. The size of the lot would need to be determined. A bridge across Exit Creek would be built near the parking lot for trail access.
- Allow for a food/coffee shop concession and a book/gift shop. These can either be housed in existing buildings or replacement buildings. They might be limited to self-contained or mobile operations.
- Collect fees near park boundary rather than in the current location near the parking lot.
- The existing campground would not be expanded, as there is sufficient opportunity for camping outside the park.
- The planned gathering pavilion fits well with this alternative and would be constructed.

The **Pedestrian Zone** would mainly be located in the outwash plain of the glacier terminus. There also would be a non-adjacent area in the wetland on the south side of the road that provides wetland viewing access.

Actions:

- The only action for this zone would be to possibly construct a boardwalk in the wetlands area near the beaver pond.

The **Hiker Zone** would be applied to encompass suitable terrain

for construction of trails that access a variety of environments.

Actions:

- Install a bridge across Exit Creek to provide access from trails to the road in the Rustic Development zone.
- Construct a loop trail north of road in the lowland forest with access to the wetland. A spur off this trail could be built to Goat Ridge, connecting back with the Harding Icefield Trail to form a loop.
- Construct a trail leading to Paradise Valley with a possible connection to the Caines Head trails system. A spur off this trail could lead to the adjacent alpine area and the tall unnamed peak in the Backcountry Semi-primitive zone.
- Establish a trail out of the existing climber route connecting the Harding Icefield Trail to the glacier.

Terrain that is not suitable for trails or structures due to steepness, unstable rock, and avalanches would be included in the **Backcountry Semi-primitive Zone**. Trails from the Hiker Zone could continue as marked routes in this zone. The boundary near the top of the Harding Icefield Trail would be some distance away from the trail so as to allow for dispersed camping for parties coming and going to the icefield. An exception to this zone description would be that no ice climbing would be allowed at the glacier terminus due to safety concerns.

Actions:

- Mark route continuing from the Paradise Valley spur trail in the Hiker Zone to the tall unnamed peak in this zone.

The **Backcountry Primitive Zone** would be applied to include the entire Harding Icefield portion of the Exit Glacier area and part of the glacier unit along the summer snow melt line. These areas are not suitable for trails or marked routes due to shifting ice and snow.

Actions:

- No actions would be taken in this zone.

Winter

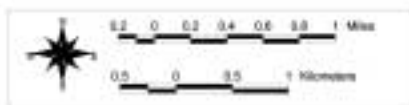
The **Rustic Development Zone** would be allocated the same as in summer but would not include the paved trail from the parking lot to the glacier. There would be no motorized use beyond the parking lot. By providing increased overnight accommodations, it is assumed that the amount of non-motorized use in the area would increase. Since it is a long ski or skijor from Seward to Exit Glacier, more people would be likely to come if they can stay overnight.

Actions:

- The bike path would possibly be groomed for non-motorized use.
- Motorized use would continue to be allowed on the road and in the parking lot.
- Open two of the existing cabins to public use (only one is currently open) and allow for a concessionaire to provide overnight accommodations (e.g., yurts).
- Maintain vault toilets (i.e., pump in the fall) to accommodate increased visitor use.
- A snow coach concession would be encouraged to transport visitors from Seward to the park.

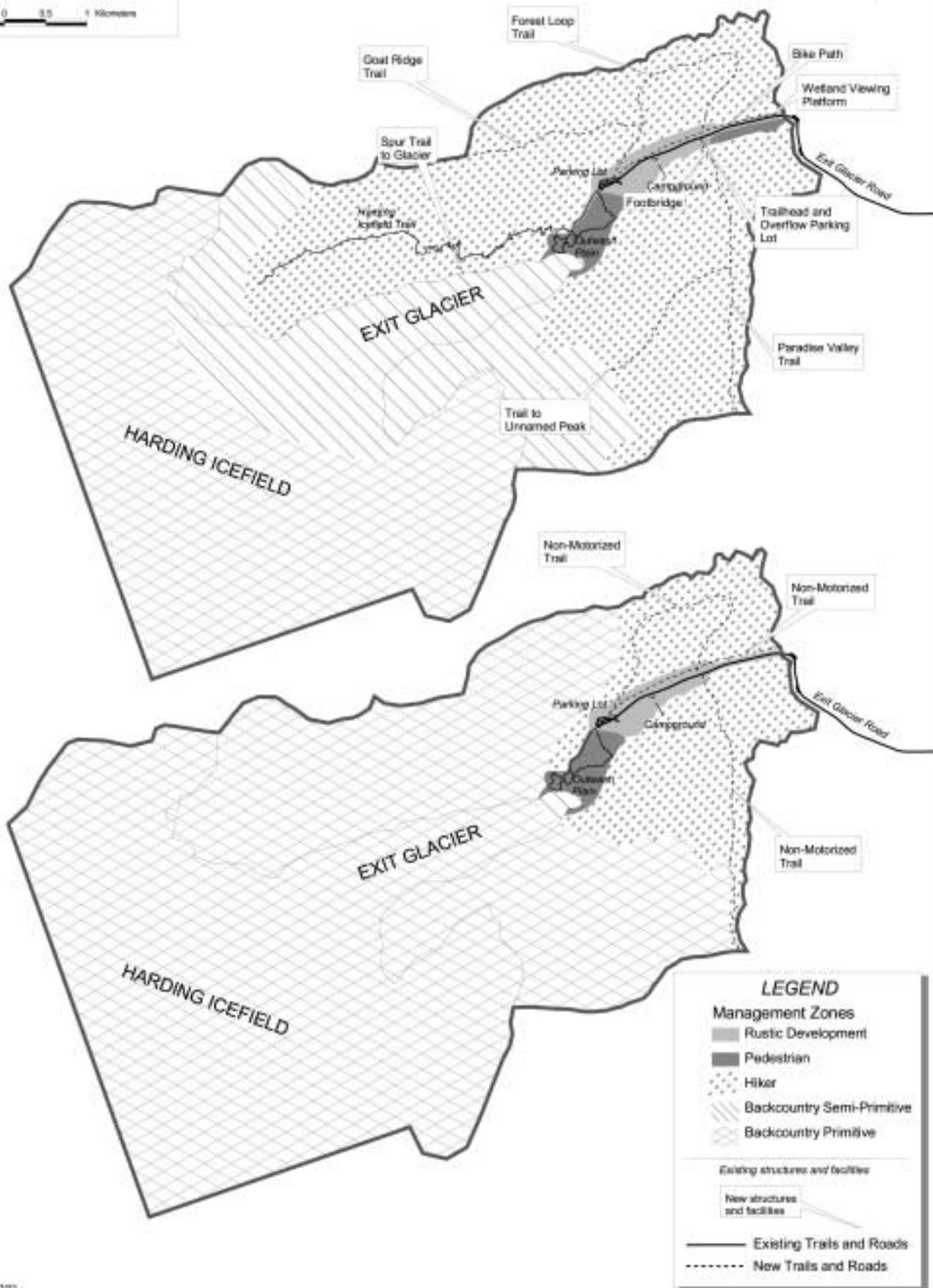
The **Pedestrian Zone** would be applied the same as in summer but

Preliminary Alternative D



SUMMER

WINTER



would also include the paved trail from the parking lot to the glacier. An exception to this zone description would be to allow motorized administrative use for trail grooming.

Actions:

- Close all areas to motorized vehicles and enforce closures.
- Possibly groom the paved trail to the glacier for non-motorized use.

The **Hiker Zone** boundary would follow the contours of the lowland forest. Upper slopes, which would be part of this zone in summer, are too steep for developed winter trails. This zone would encompass stream corridors that provide good skiing opportunities. An exception to this zone description would allow motorized administrative use for trail grooming.

Actions:

- Groom Forest Loop Trail north of the road and possibly the Paradise Valley Trail to the south for non-motorized use. Grooming would be based on demand. If visitor use remains low, trails would not be groomed.
- Close all areas to motorized vehicles and enforce closures.

In winter, only a small section of the project area at the terminus of the glacier would be zoned as Backcountry Semi-primitive.

Actions:

- No actions would be taken in this zone.

The majority of the project area would be zoned as **Backcountry Primitive** to allow for maximum protection of natural resources.

Actions:

- No actions would be taken in this zone.

Implications:

Natural Resources

Impacts on natural resources under this alternative would be moderate. There is good potential for visitor use to increase, resulting in an intermediate level of visitor related impacts. More trails bring more people out to remote areas, resulting in greater impacts such as disruption of wildlife, vegetation trampling, and decreased water quality. Impacts to vegetation and soils would occur from bike path and other construction (parking, trail widening, food concession, wetlands boardwalk). A food concession can lead to trash and wildlife problems, such as habituation. Marked routes may lead to development of an actual trail, with associated vegetation and soil impacts. In winter, disruption of wildlife could occur with increased overnight and day use. Yurts can be located either in the campground or parking lot, with few impacts to vegetation. Impacts to air quality and to the soundscape would improve with reduced motorized use.

Visitor Experience

Visitor use would be expected to increase with an expanded trails system and improved amenities. Access and recreational opportunities would be improved with the addition of the bike path. With an expanded trail system, visitors would have access to areas that are currently difficult to experience. There could be less crowding on the Harding Icefield Trail as people disperse on other trails, improving the visitor experience. New trails, especially in Paradise Valley, provide increased opportunity for visitors to experience backcountry. However, more people will also be parking

longer, making it difficult to find parking on busy days. People required to park in overflow parking would have to walk farther to see the glacier. In winter, visitors would be provided with increased overnight accommodation options. Non-motorized users would have improved and diverse experiences available. Motorized use would be precluded with area closures.

Socioeconomic Condition

This alternative would result in an increase in visitor use and would allow for greater opportunities for concessionaires to operate food service, a book/gift shop, and guided hiking tours. In winter, opportunities would increase for concessionaires to operate overnight accommodations; however, concessionaires who currently operate guided snowmachine tours would be adversely impacted. Concessionaire operated alternative transportation in winter could bring more visitors into the area as well. An increase in funding and staff would be needed year round to construct and maintain the bike path, wetlands boardwalk, and new trails, to manage concessionaire operations, and for increased patrols to enforce motorized vehicle closures.



Courtesy of NPS

The Next Steps

Following your review of these preliminary alternatives, modifications will be made and then a draft Environmental Impact Statement (EIS) will be prepared. In this draft, the National Park Service will describe a preferred alternative. The preferred alternative may be very similar to one of the preliminary alternatives, may incorporate elements from more than one preliminary alternative, or could present an entirely new alternative. Public comments are an important factor in identifying a preferred alternative, but the decision is also influenced by policies and laws as mentioned previously, by potential for resource impacts, and by information collected from natural resource and social science studies. You will have an opportunity to comment on the draft EIS in 2003.

How to Comment

Written comments will be especially useful if received by July 1, 2002. You can comment several ways:

- Mail in the pre-stamped comment card with your answers to the questions and/or your mapped vision for the Exit Glacier area.
- Mail comments to:
Kenai Fjords National Park
Attn: EG Plan
P.O. Box 1727
Seward, AK, 99664
- Fax comments to EG plan at:
907-224-2144
- Email comments to:
kefj_eg_plan@nps.gov

Visit our web site, available at www.nps.gov/kefj/verp.htm, to view additional information about the Exit Glacier planning project. Included on the web site are the maps and descriptions for the preliminary alternatives.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individuals may request that we withhold their home address from the administrative record, which we will honor to the extent allowable by law. There also may be circumstances in which we would withhold from the administrative record a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.



Kenai Fjords National Park
P.O. Box 1727
Seward, AK 99664

